

(c) In the case of unusual arrangements, the Commanding Officer, Marine Safety Center may require a detailed calculation of average permeability for the portions of the vessel forward or aft of the machinery spaces. When doing these calculations, the permeabilities specified in paragraph (b) of this section must be used.

(d) When calculating permeability, the total volume of the 'tween deck spaces between two adjacent main transverse watertight bulkheads that contains any passenger or crew space must be regarded as passenger space volume, except that the volume of any space that is completely enclosed in steel bulkheads and is not a crew or passenger space may be excluded.

TABLE 171.066—TABLE OF UNIFORM AVERAGE PERMEABILITIES

Location	Uniform average permeability
Machinery space	$\frac{10(a-c)}{85+v}$
Volume forward of machinery space	$\frac{35(a)}{63+v}$
Volume aft of machinery space	$\frac{35(a)}{63+v}$

For each location specified in this table—
a=volume below the margin line of all spaces that, in the full load condition, normally contain no cargo, baggage, stores, provisions, or mail.
c=volume below the margin line of the cargo, stores, provisions, or mail spaces within the limits of the machinery space.
v=total volume below the margin line.

[CGD 79-023, 48 FR 51017, Nov. 4, 1983, as amended by CGD 88-070, 53 FR 34537, Sept. 7, 1988]

§ 171.067 Treatment of stepped and recessed bulkheads in Type I subdivision.

(a) For the purpose of this section—

(1) The main transverse watertight bulkhead immediately forward of a stepped bulkhead is referred to as bulkhead 1; and

(2) The main transverse watertight bulkhead immediately aft of the stepped bulkhead is referred to as bulkhead 3.

(b) If a main transverse watertight bulkhead is stepped, it and bulkheads 1 and 3 must meet one of the following conditions:

(1) The separation between bulkheads 1 and 3 must not exceed the following:

(i) If the factor of subdivision (FS) determined from § 171.065 (a) or (b) is greater than 0.9, the distance between bulkheads 1 and 3 must not exceed the maximum separation calculated to demonstrate compliance with § 171.065.

(ii) If the factor of subdivision is 0.9 or less, the distance between bulkheads 1 and 3 must not exceed 90% of the floodable length or twice the maximum bulkhead separation calculated to demonstrate compliance with § 171.065, whichever is smaller.

(2) Additional watertight bulkheads must be located as shown in Figure 171.067(a) so that distances A, B, C, and D, illustrated in Figure 171.067(a), satisfy the following:

(i) Distances A and B must not exceed the maximum spacing allowed by § 171.065.

(ii) Distances C and D must not be less than the minimum separation prescribed by § 171.065(e).

(3) The distance A, illustrated in Figure 171.067(b), must not exceed the maximum length determined in § 171.065 corresponding to a margin line taken 3 inches (7.6 cm) below the step.

(c) A main transverse bulkhead may not be recessed unless all parts of the recess are inboard from the shell of the vessel a distance A as illustrated in Figure 171.067(c).

(d) Any part of a recess that lies outside the limits defined in paragraph (c) of this section must be treated as a step in accordance with paragraph (b) of this section.

(e) The distance between a main transverse watertight bulkhead and the transverse plane passing through the nearest portion of a recessed bulkhead must be greater than the minimum separation specified by § 171.065(e).

(f) If a main transverse bulkhead is stepped or recessed, equivalent plane bulkheads must be used in the calculations required to demonstrate compliance with § 171.065.

Figure 171.067(a)
Additional Subdivision

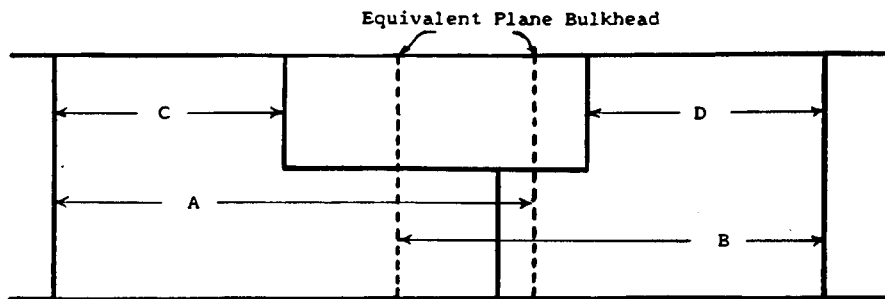


Figure 171.067(b)
Margin Line Below Step

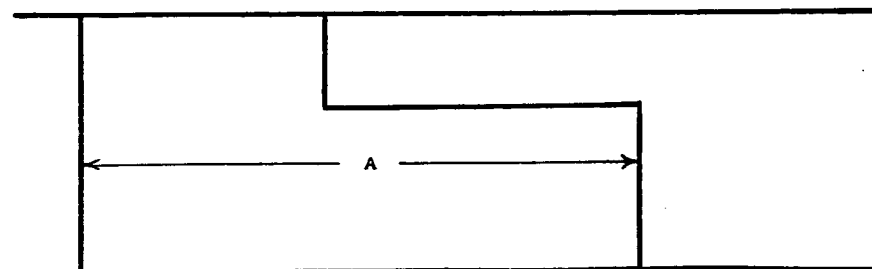
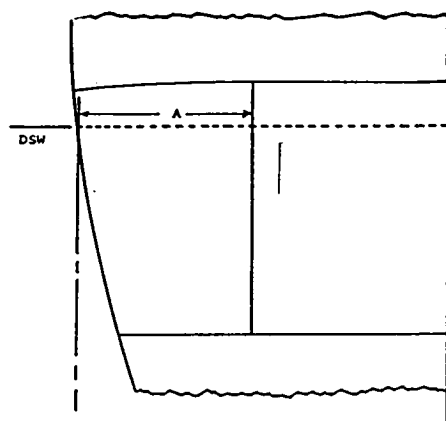
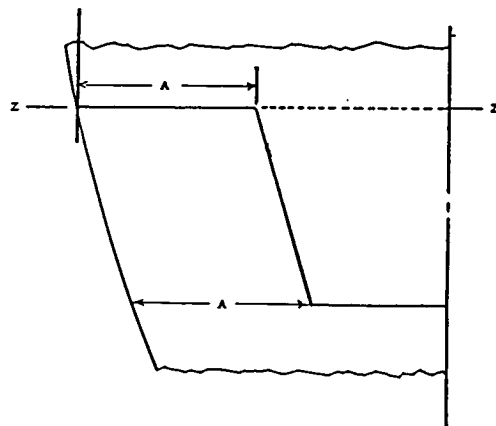


Figure 171.067(c)Limits of a RecessSection Through Recess
At ZZ

A = One-fifth the maximum beam measured
on the waterline corresponding to
the deepest subdivision waterline.

DSW = Deepest subdivision waterline

Plan View of Recess at
the waterline corresponding
to the deepest subdivision
waterline